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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,876	10/05/2000	Yasuharu Suda	198047US0PCT	3995

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EXAMINER

FUNK, STEPHEN R

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A-7

Office Action Summary

Application N .

09/646,876

Applicant(s)

SUDA, YASUHARU

Examiner

Stephen R Funk

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003 .
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,6-24,26,27,31-40,42-51 and 89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-24,26,27,31-40,42-51 and 89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>17</u> . | 6) <input type="checkbox"/> Other: _____ |

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The effective filing date for claims 1, 6 - 24, 26, 27, 31 - 40, and 42 - 51 has been determined to be February 7, 2000, the filing date of PCT/JP00/00641 as it appears that neither of the priority documents JP 11-029362 or JP 11-090146 provide support for the elements recited in claim 1 line 4.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6 - 11, 13, 22, 42, 43, and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Kasai et al. (US 6,232,034).

Kasai et al. teach a printing plate material comprising a substrate (Abstract line 2) and a coat layer (Abstract line 2) containing a titanium oxide photocatalyst (Abstract lines 3 - 4) and a metal or oxide selected from the group consisting of Mo, Cr, Sn, or Si (column 4 lines 54 - 65).

With respect to claims 8 and 10 see column 4 lines 11 - 15 of Kasai et al.

With respect to claims 9 and 10 see column 10 lines 13 - 16 of Kasai et al.

With respect to claim 11 see the paragraph bridging columns 3 and 4 of Kasai et al.

With respect to claims 13 and 43 the broad recitation of irradiating with a flux of energy does not distinguish from the heat of Kasai et al. See page 36 lines 23 - 24 in the specification.

With respect to claims 22, 42, and 50 see column 10 lines 22 - 31 of Kasai et al. The broad recitation of cleaning the surface does not distinguish from removing the ink as disclosed by Kasai et al.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12, 23, 47, and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasai et al.

With respect to claim 12 Kasai et al. do not teach the required energy. However, it would have been obvious to one of ordinary skill in the art through routine experimentation to arrive at the necessary energy of 0.0005 to 2 J/cm² to convert the surface of Kasai et al. to hydrophilic, particularly in view of the similarities between the coat layer of applicant and Kasai et al.

With respect to claim 23 Kasai et al. do not teach polish cleaning the surface. However, it would have been obvious to one of ordinary skill in the art to polish clean the surface of Kasai et al. so as surely remove all of the present ink.

With respect to claim 47 Kasai et al. do not teach cleaning and renewing the plate in the printing machine. However, it is well known in the art to clean and renew printing plates in the printing machine so as to more quickly start a new printing run.

With respect to claim 89 Kasai et al. do not specifically teach Mn²⁺ or Cr²⁺. However, in view of the similarities between applicant's coat layer and that of Kasai et al., and the natural tendency of metals to form stable oxides, it would have been obvious to one of ordinary skill in the art to provide the metal oxide of Mn or Cr, as disclosed by Kasai et al., in the form of Mn²⁺ or Cr²⁺ as a conventional oxide of those metals.

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Claims 14 - 21, 35 - 40, and 44 - 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasai et al. in view of D'Heureuse et al. (US 6,318,264).

Kasai et al. do not teach a chemical, flux of energy and chemical, or irradiation and electrochemical conversion treatments. D'Heureuse et al. disclose chemical and/or physical conversion treatments. See column 6 lines 10 - 22 and column 10 lines 9 - 24 of D'Heureuse et al., for example. It would have been obvious to one of ordinary skill in the art to provide the conversion treatment of Kasai et al. with any of the conversion treatments of D'Heureuse et al. so as to more quickly renew the surface.

With respect to claims 14 and 44 note the chemical treatment of D'Heureuse et al.

With respect to claims 15 and 45 it would have been obvious to one of ordinary skill in the art to combine the heat treatment of Kasai et al. with the chemical treatment of D'Heureuse et al. so as to facilitate the conversion.

With respect to claims 16 - 21 and 46 it would have been obvious to one of ordinary skill in the art to provide an electrochemical conversion in view of the teaching of D'Heureuse et al. to provide a chemical treatment so as to facilitate the chemical conversion.

With respect to claims 35 - 40 it would have been obvious to one of ordinary skill in the art to provide any of the recited organic hydrophobic molecules as a chemical treatment to facilitate converting the hydrophilic surface back to hydrophobic.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Claims 24, 26, 27, 31 - 34, 48, 49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasai et al. in view of Gelbart et al. (US 5,713,287).

Kasai et al. do not teach providing a coating layer over the coat layer. Gelbart et al. disclose the conventionality of providing a coating layer (17), comprising a photocatalyst, over a first coat layer (18), comprising a photocatalyst, so as to renew the coat layer. See Figures 2a - 2c, and corresponding portions in the specification, of Gelbart et al. It would have been obvious to one of ordinary skill in the art to provide the printing plate material of Kasai et al. with a renewing coating layer over the coat layer in view of Gelbart et al. so as to quickly renew the printing plate material.

With respect to claims 26 and 31 - 33 note the photocatalyst, and the relevant above discussion, of the coat layer of Kasai et al. It is noted that each of the above claims refer back to the "coat" layer of claim 1 and not the "coating" layer of claim 24.

With respect to claim 27 it would have been obvious to one of ordinary skill in the art to provide the dopant metal as a compound oxide with titanium so as to further enhance the photocatalytic properties of the titanium.

With respect to claims 34 and 48 the coating layer would function the same as the underlying coat layer.

With respect to claims 49 and 51 note that the cleaning and renewing of Gelbart et al. is performed in a printing machine.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note column 8 lines 11 - 16 of Koguchi et al. (US 6,079,331), column 7 lines 60 - 65

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of Koguchi et al. (US 6,082,263), the paragraph bridging columns 4 and 5 of Kasai et al. (US 6,258,512), and column 7 lines 54 - 65 of Kato et al. (US 6,106,984).

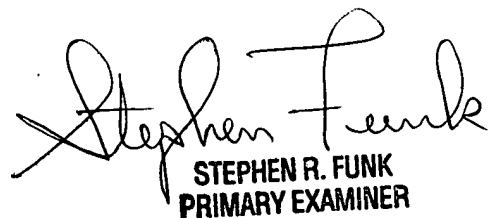
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen R. Funk whose telephone number is (703) 308-0982. The examiner can normally be reached Monday - Thursday from 7:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Hirshfeld, can be reached on (703) 305-6619.

The fax phone number for *official* papers is (703) 308-7722, 7724. The fax number for those wishing an auto-reply verifying receipt of *official* papers is (703) 872-9318 or for After Final actions is (703) 872-9319. Upon consulting with the examiner *unofficial* papers only may be faxed directly to the examiner.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

SRF
August 19, 2003



STEPHEN R. FUNK
PRIMARY EXAMINER